APPENDIX A

I. Construction Plan

A. Profiles showing existing and proposed elevations along center lines of all roads. Where a proposed road intersects an existing road, the elevation along the center line of the existing road(s) within (300) three hundred feet of the intersection, shall be shown on the plan. Radii of all curves, lengths of tangents, and central angles on all streets.

B. Plans and profiles showing the locations and typical cross-sections of street pavements, including curbs and gutters, sidewalks, drainage easements, rights-of-way, manholes, and catch basins; the location of street trees, street lighting equipment, and street signs. The location, size, and invert elevations of existing and proposed sanitary sewers, stormwater drains, and fire hydrants, showing connection to any existing or proposed utility systems/ and exact location and size of all water, gas or other underground utilities and structures.

C. Location, size, elevation, and other appropriate description of any existing facilities or utilities including, but not limited to, existing streets, septic disposal facilities, sewers, drains, water mains, wells, easements, waterbodies, watercourses, and other pertinent features, such as surface drainage areas, swamps, railroads, buildings, at the point of connection to proposed facilities and utilities within the site. The water elevations of adjoining waterbodies or watercourses at the date of survey, and the approximate high and low water elevations of such waterbodies and watercourses.

D. Topography at the same scale as the existing site conditions plan with a contour interval of two (2) feet, referred to sea level datum. All datum provided shall reference the latest applicable U.S. Coast and Geodetic Survey datum and should be noted on the plan.

E. All other applicable provisions and references of the public works specifications.

II. Drainage, Erosion and Sedimentation Control

A. General. The purpose of this regulation is to control soil erosion and sedimentation resulting from site construction and development. Subdivision and site plans shall include plans for controlling erosion and sedimentation as provided below.

B. Design standards - erosion and sedimentation control. The following standards shall be applied in planning for erosion and sedimentation control:

1. All erosion and sediment control measures in the plan shall meet the design standards and specifications set forth in the Erosion and Sedimentation Control Design Handbook for Developing Areas in New Hampshire as amended and adopted by the County Conservation District.

2. Whenever practical, natural vegetation shall be retained, protected or supplemented. The stripping of vegetation will be done in a manner that minimizes soil erosion.

3. Appropriate control measures shall be installed prior to removal of vegetation.

4. The area of disturbance shall be kept to a minimum. Disturbed areas remaining idle for more than thirty (30) days shall be stabilized by appropriate measures.

5. Measures shall be taken to control sediment and retain it within the project area. Sediment in runoff water shall be trapped and retained within the project area using

approved measures. Very poorly drained soils and water bodies shall be protected from sediment.

6. Off-site surface water and runoff from undisturbed areas shall be carried non-erosively through the project area, or diverted away from disturbed areas where feasible.

7. Naturally occurring streams, channels and wetlands shall be used for conveyance of runoff leaving the project area.

8. All temporary erosion and sediment control measures shall be removed after final site stabilization. Trapped sediment and other disturbed soil areas resulting from the removal of temporary measures shall be permanently stabilized within thirty (30) days.

C. Plan requirements - Erosion and Sediment Control.

1. Preliminary Plan Requirements. A preliminary plan is optional. If submitted, it shall include the following:

(a) Site drawing of existing and proposed conditions:

(i) Locus map showing property boundaries;
(ii) North arrow, scale and date;
(iii) Property lines;
(iv) Easements;
(v) Structures, utilities, roads and other paved areas;
(vi) Topographic contours;
(vii) Critical areas;
(viii) Waterways, bodies of water, drainage patterns, and watershed boundaries;
(ix) Vegetation;
(x) Soils information from Soil Conservation Service published data or, where High Intensity Soil Maps are used, a conversion to a soil series map done by a Certified Soil Scientist;
(xi) Erosion and sediment control measures;
(xii) Areas of soil disturbance.

(b) Narrative section including discussion of each measure, its purpose, construction sequence, and installation timing as they apply to the site.

2. Final Plan Requirements. The Board shall require each of the following in the final plan unless specifically waived:

(a) Site drawing of existing and proposed conditions:

(i) Locus map showing property boundaries;
(ii) North arrow, scale and date;
(iii) Property lines;
(iv) Structures, roads, utilities, earth stockpiles, equipment storage, and stump disposal;
(v) Topographic contours at two-foot intervals;
(vi) Extent of 100-year flood plain boundaries if published or determined;
(vii) Soils information from Soil Conservation Service published data or, where High Intensity Soil Maps are used, a conversion to a soil series map done by a Certified Soil Scientist;
(viii) Easements;
(ix) Areas of soil disturbance.

(x) Areas of cut and fill
(xi) Areas of poorly and/or very poorly drained soils including any portion to be disturbed or filled;
(xii) Location of all structural and vegetative erosion and sedimentation control measures;
(xiii) Identification of all permanent control measures.

(b) Narrative section including:

(i) Construction schedule;
(ii) Earth movement schedule;
(iii) Description of temporary and permanent vegetative measures including seeding specifications;
(iv) Description of all structural erosion and sedimentation control measures, with detailed drawings of each;
(v) Design calculations for all temporary and permanent structural control measures;
(vi) A proposed schedule for the inspection and maintenance of all measures;
(vii) Identification of all permanent control measures and responsibility for continued maintenance.
(viii) Calculations showing volume, peak discharge, and velocity of, present and future runoff.

D. Responsibility for installation/construction. The applicant shall bear final responsibility for the installation, construction and disposition of all erosion and sediment control measures required by the provisions of this regulation. The Board may require a bond or other security as described in Section IX. Site development shall not begin before the erosion and sediment control plan is approved and the control measures are installed as scheduled in the approved plan.

E. Maintenance. The applicant shall maintain all soil erosion and sediment control measures, including devices and plantings as specified in the approved plan, in effective working condition. Responsibility for maintenance by subsequent owners of the property on which permanent measures have been installed shall be included in the deed and shall run with the land. If the owner fails to adequately maintain such measures, the Town shall have the authority to perform required maintenance. The cost of such work shall be borne by the owner.

F. Plan approval and review. The Board shall indicate its approval of the erosion and sediment control plan, as filed, if it complies with the requirements and objectives of this regulation. If disapproved, a list of plan deficiencies and the procedure for filing a revised plan will be given to the applicant.

Technical review of any erosion and sediment control plan prepared under this regulation shall be reviewed by the consulting engineer at the applicant's expense.

G. Inspection. Inspection shall be made by an agent of the Board during development to ensure compliance with the approved plan and that control measures are properly installed or performed and maintained. The costs of such review shall be borne by the applicant.

H. Other Required Permits. In addition to local approval, the following may be required:

RSA 485-A:17 requires a permit from the NH DES Water Supply and Pollution Control Division for "...any person proposing to significantly alter the characteristic of the terrain, in such a manner as to impede natural runoff or create an unnatural runoff...". Regulations require this permit for any project involving more than 100,000 contiguous square feet of disturbance or if such activity occurs in or on the border of the surface waters of the State.

III. Stormwater Management Plan

A. General. The purpose of this plan is to address the effects of the proposed development on the existing stormwater drainage situation and capacity. These plans will often be required in conjunction with an erosion and sedimentation control plan.

B. Plan Requirements. The following standards and requirements shall meet and submitted as part of the stormwater management plans.

1. Calculations of stormwater displacement and flow shall be calculated for a 25 year storm event. All facilities and mediation methods must be designed to accommodate a 25 year storm event.

2. The effects of stormwater drainage on downstream drainage facilities.

3. Methods and provisions to eliminate any overload or significant increase in downstream facilities.

(i) Drainage easements.
(ii) Retention/detention ponds.
(iii) Any other facilities.

4. Appropriate methods to extend and/or connect the proposed drainage system to adjacent land whether or not such land is developed.

5. Appropriate accommodation of potential upstream development.

6. Preservation of natural watercourses within the existing watershed drainage basin.

7. Post-development surface runoff shall be equal to pre-development runoff rates.

C. Plan approval and review. The Board shall indicate its approval of the stormwater management plan, as filed, if it complies with the requirements and objectives of this regulation. If disapproved, a list of plan deficiencies and the procedure for filing a revised plan will be given to the applicant.

Technical review of any stormwater management plan prepared under this regulation shall be reviewed by the consulting engineer at the applicant's expense.

D. Inspection. Inspection shall be made by an agent of the Board during development to ensure compliance with the approved plan and that management measures are properly installed or performed and maintained. The costs of such review shall be borne by the applicant.

IV. Traffic Impact Analysis

A. Traffic interior and exterior circulation, access and egress, adequacy of adjacent streets and intersections, entrances and exits, traffic flow, sight distances, accident statistics, curb cuts, turning lanes, and existing or recommended signalization.

B. Amount, nature, and impact of traffic generated by the proposed development.

C. Pedestrian safety, interior and exterior circulation, access and egress.

D. Off-street parking and loading.

E. Emergency vehicle access.

F. The Board may retain the services of a consultant qualified in traffic planning to review the traffic impact analysis and to ensure that adequate provisions are made in the development plan to reduce or eliminate those impacts. The Board may further require, pursuant to RSA 676:4 I(g), that the developer reimburse the Town for reasonable costs of this review. No plan shall be approved until such fees, if applicable, are paid in full.

V. Parking Design Standards

A. Parking areas must be constructed to the following specifications:

1. Loam and/or yielding material must be removed to a depth of no less than 12 (twelve) inches below the final grade.

2. A bank run gravel sub-base of six (6) inches must be applied and compacted, followed by a six (6) inch base of crushed gravel, which is then compacted and rolled true to grade lines with a roller.

3. A one (1) inch binder course and a one (1) inch wearing surface of bituminous concrete and pavement must be installed with a self propelled mechanical spreader and rolled by a tandem roller.

4. The minimum grade for parking areas shall be .5%, and the maximum grade shall be 5%.

5. Parking areas must have adequate landscaping within the site and adjacent to loading facilities.

B. Regarding the above construction standards for parking areas, the Board may consider waiving the standards and approving an alternative upon review and approval from the Board engineer.

VI. On-site Sewage System Design

A. Regarding the installation of on-site sewage disposal systems, the following design standards shall apply:

1. Subsurface sewage disposal systems under 2,500 gallons/day must be designed by a septic system designer, licensed in the State of NH, or a Professional Engineer. All systems must be designed in accordance with the most recent edition of Subdivision and Individual Sewage Disposal System Design Rules as published by the NH Water Supply and Pollution Control Division of the Department of Environmental Services. (Env-Ws 1003.01 (a),(b)).

2. Systems over 2,500 gallons/day shall be designed by a permitted designer who is also a civil or sanitary engineer licensed in the State of New Hampshire. All systems are to be constructed in accordance with the most recent edition of the Subdivision and Individual Sewage Disposal System Design Rules as published by the NH Water Supply and Pollution Control Division of the Department of Environmental Services. (Env-Ws 1003.01 (d)).

3. The Town of Newton, in an effort to protect from preventable elements of pollution and any other discharge into the environment, and to protect and improve water quality, incorporates the following requirements (as found in Env-Ws 1014.01 et seq.) as the minimum standards for design of on-site sewage systems in Newton. Any modification

of these requirements, even if approved by the State shall require a waiver in accordance with Section X, Waivers.

Table SP-1 - Minimum Standards for Distances in Septic Systems
(All distances in feet)

System Element	SHWT	Impermeable Subsoil	Bedrock	Hydric B Soils	Hydric A Soils
Leaching field	4’ above	6’ above	6’ above	75’ lateral	75’ lateral
Receiving area	N/A	2’ above	3’ above	75’ lateral	75’ lateral

4. In addition to the natural permeable soil requirement, fill material may be added when needed to raise the bottom of the leaching area above seasonal high groundwater table or impervious substratum. The fill material shall be a medium to course textured sand (0.5 to 1.mm) with a uniformity coefficient (as determined by a sieve analysis) greater than four (4). In addition to the above, any fill must also meet the requirements of Env-Ws 1014-01 (b-e).

VII. Hydrogeologic Study

A. A hydrologic study shall, at a minimum, provide the following:

1. A hydrologic mapping of local groundwater flow, aquifer characteristics, including but not limited to, elevation, transmissivity, and boundaries.

2. Existing background water quality.

3. The location of abutter water supply wells and septic systems.

4. The location and capacity of the proposed septic system(s).

5. Estimates of the transport of contaminants from any septic system(s) and of constituent concentrations (i.e. nitrates) at the property boundary and at the abutter's water supplies.

6. The hydrologic studies shall be performed by qualified hydrologists, hydrogeologists, or other qualified professionals. All water testing is to be performed at EPA approved laboratories.